

App. No. 10/709,889  
Amendment dated November 23, 2005  
Reply to Office action of August 23, 2005

## **REMARKS**

### ***Summary of Amendments***

Claims 1 through 10 were originally presented in this application. No claims have been canceled. New claims 11 through 17 have been added. No claims have been amended. Accordingly, claims 1 through 17 are pending.

### ***Drawings***

The drawings were objected to as failing to comply with 37 CFR § 1.84(p)(5) because Figs. 1A and 1B include the reference mark "4," which was not included in the description.

Paragraph [0018] of the specification has been amended to address this issue.

### ***Objections – Specification***

The specification was objected to because the title should be placed on top of all parts. The abstract of the specification was also objected to because it was not on a single sheet.

Applicants respectfully submit that these "formatting" issues are the result of the USPTO's PASAT software. The present application was filed electronically via EFS using PASAT (an earlier version of the USPTO's specification authoring software). PASAT software controlled the placement of the title for all specifications authored therewith. The abstract spilled over to a second page because the title is long and because PASAT software repeated the title on the abstract page in a large font size. Applicants were unable to control such formatting issues at the time of filing. Therefore Applicants request that the Examiner remove these objections.

### ***Claim Rejections - 35 U.S.C. § 102***

Claims 1-8, 10, 13 and 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,310,755 to Kholodenko et al.

1. Independent Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by *Kuibira et al.* (U.S. Pat. No. 6,508,884). In particular, the Examiner states: "Kuibira discloses a holder 1 for use in semiconductor or liquid crystal

App. No. 10/709,889  
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manufacturing devices, as shown in Figs. 1-7, comprising: a ceramic susceptor 10b & 14 and a composite of a ceramic 10a and a metal (col. 10, lines 53-63) furnished atop said ceramic susceptor."

2. Applicants respectfully traverse this rejection. It is well settled that there is no anticipation unless (1) *all the same elements* are (2) found in exactly the same situation and (3) are united in the same way to (4) perform the identical function. Applicant submits that *Kuibira et al.* do not include the same elements as the present invention. As originally submitted, claim 1 recites a holder comprising a ceramic susceptor and a "composite of a ceramic and a metal furnished atop said ceramic susceptor" (emphasis added). On the contrary, *Kuibira et al.* do not disclose, or even suggest, a composite of any kind, and in particular do not disclose or suggest a composite of a ceramic and a metal as recited in original claim 1. Rather, in Figs. 3-5 (col. 9, line 41 through col. 10 line 21) *Kuibira et al.* disclose a wafer holder having a laminate structure that includes a patterned heater circuit 11 formed between first and second ceramic pieces 10a and 10b. An intervening joint layer 14 joins the ceramic pieces 10a and 10b. Applicants fail to see how such a disclosure constitutes a composite of a ceramic and a metal.

3. Applicants further submit that the laminate structure disclosed by *Kuibira et al.* does not constitute or suggest a "composite of a ceramic and a metal" as recited in original claim 1. A composite material is typically defined as a material including "a mixture of or combination of two or more microconstituents or macroconstituents that differ in form and chemical composition and that are essentially insoluble in each other" (*Academic Press Dictionary of Science and Technology*, 1992). Thus, original claim 1 essentially recites an element that is a mixture of ceramic and metal microconstituents or macroconstituents. Such a structure is clearly distinct from the laminate wafer holder disclosed by *Kuibira et al.*

4. Applicants therefore respectfully submit that independent claim 1, as originally filed, is patentable over the prior art of record. Independent claim 1 being allowable, it follows *a fortiori* that dependent claims 2 through 10 must also be allowable, since these dependent claims carry with them all the elements of independent claim 1.

5. New independent claim 11 is presented for consideration in this paper. New claim 11 recites a holder comprising a "ceramic-metal composite including a substantially uniform mixture of ceramic and metal microconstituents." New claim 11 is supported by Paragraph [0020] of the original specification such that no new search is required and no new matter has been added. In support of new claim 11, paragraph [0020] states that the ceramic-metal composite may be fabricated, for example, by "infiltrating metal into porous ceramic, or blending and post-mold sintering ceramic powder with metal powder."

App. No. 10/709,889  
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6. Applicant respectfully submits that new claim 11 distinguishes patentably over the prior art of record for the same reasons as independent claim 1 (see sections 2 and 3 above). Moreover, new claim 11 is further distinct from the prior art of record in that it recites "a ceramic-metal composite including a substantially uniform mixture of ceramic and metal microconstituents" (emphasis added). Nowhere does the prior art of record teach, or even suggest, a holder comprising a ceramic-metal composite having a substantially uniform mixture of ceramic and metal microconstituents. Applicant therefore requests that the Examiner allow new claim 11.

7. New claims 12 through 17, each of which depends from new claim 11, are also presented for consideration in this paper. New claims 12 through 17 are supported by the original specification and figures such that no new search is required and no new matter has been added. For example, new claims 12 and 13 are supported by Figs. 1A and 1B. New claims 14 and 15 are supported by Paragraph [0020] of the original specification as described above in section 5 of this paper. New claims 16 and 17 are supported by Paragraph [0024] of the original specification.

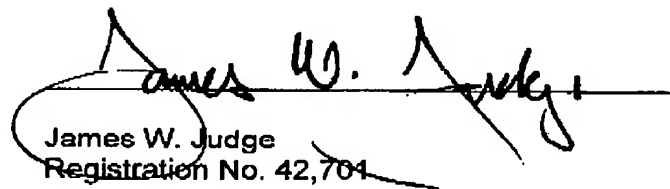
8. Applicant respectfully submits that new claims 12 through 17 distinguish patentably over the prior art of record for the same reasons as new claim 11 from which they depend. Moreover, new claim 14 is further distinct from the prior art of record in that it recites a ceramic-metal composite including "a sintered mixture of metal and ceramic powders." New claim 15 is further distinct from the prior art in that it recites a ceramic-metal composite including "metal infiltrated into a porous ceramic substrate." New claim 16 is further distinct from the prior art in that it recites a metal selected from "the group consisting of Al, Si, and Cu" and a ceramic selected from "the group consisting of SiC, Al<sub>2</sub>O<sub>3</sub>, AlN, WC, and BN." New claim 17 is further distinct from the prior art in that it recites a "ceramic-metal composite comprising at least one compound selected from the group consisting of Al-SiC, Al-Al<sub>2</sub>O<sub>3</sub>, Al-AlN, Si-SiC, Si-Al<sub>2</sub>O<sub>3</sub>, and Si-AlN." Nowhere do *Kuibira et al.* teach, or even suggest, a holder comprising such ceramic-metal composites. Applicant therefore requests that the Examiner allow new claims 12 through 17.

App. No. 10/709,889  
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Accordingly, Applicants courteously urge that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

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